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| Notice of Allowability | Application No. | Applicant(s) |
| | 09/994,635 | KARP ET AL. |
| | Examiner Ranodhi Serrao | Art Unit 2141 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to 26 September 2006.
2. The allowed claim(s) is/are 1-4,6,8-20,22,25,26,28 and 29.
3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application
6. Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.



RUPAL DHARIA
SUPERVISORY PATENT EXAMINER

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Ashok Mannava, Reg. No. 45,301 on 26 September 2006.

IN THE CLAIMS:

Please find below a listing of all of the pending claims. The statuses of the claims are set forth in parentheses.

1. (Currently Amended) A computer readable storage medium on which is embedded a computer program, the computer program comprising:
 - accessing a remote registry storing a list of description files, each description file being customized for a particular service provided by a computer and describes a pattern of message exchanges expected to be followed and documents types expected to be used for communicating with the computer to utilize the service;

identifying a description file from the list of description files corresponding to a desired service,

wherein a service provider providing the desired service published the description File for the desired

service in the remote registry;

retrieving an identification of the description file, a location of the description file or the

description file from the remote registry,

wherein the description file includes

a plurality of interactions describing a plurality of messages to be received and/or transmitted to use the desired service; and

at least one transition identifying the order of executing said plurality of interactions,

the at least one transition including a source interaction of said plurality of interactions

and a destination interaction of said plurality of interactions,

said source interaction being executed prior to said destination interaction,

said source interaction specifying a document type to be used in the source interaction; using the desired service by directly exchanging messages with the service provider providing the desired service, wherein the messages are described in the plurality of interactions in the description file, and the message exchanging is in the order specified in the at least one transition, and

executing the source interaction of the plurality of interactions comprises determining whether a document is an instance of the document type to be used in the source interaction; and executing the source interaction in response to the document being an instance of the document type.

2. (Original) The computer program of claim 1, wherein each of said plurality of interactions describes transmitting a message of said plurality of messages and/or receiving a message of said plurality of messages.
3. (Original) The computer program of claim 2, wherein at least one interaction of said plurality of interactions is configured to select one message to be received or transmitted from a set of messages, said set of messages being included in said plurality of messages.
4. (Original) The computer program of claim 3, wherein said plurality of messages are XML documents.
5. (Canceled)
6. (Previously Presented) The computer program of claim 1, wherein said at least one transition includes a triggering message of said plurality of messages, said triggering message invoking execution of said source interaction.

7. (Canceled)

8. (Previously Presented) The computer program of claim 1, wherein said at least one transition includes a default transition, said source interaction being executed when a message included in said source interaction that does not otherwise have a defined transition is received.

9. (Original) The computer program of claim 1, wherein said plurality of interactions describe a plurality of message types for said plurality of messages.

10. (Original) The computer program of claim 9, wherein said message types are schemas.

11. (Original) The computer program of claim 10, wherein said schemas are XML schemas.

12. (Original) The computer program of claim 11, wherein said plurality of interactions include a location or a unique name for said XML schema.

13. (Original) The computer program of claim 12, wherein said location or said unique name includes a URL or a URN.

14. (Previously Presented) A computer comprising:

a conversation controller generated from a description file,

wherein the computer is operable to

access a remote registry storing a list of description files, each description file being customized for a particular service provided by a computer and describes a pattern of message exchanges expected to be followed and documents types expected to be used for communicating with the computer providing, the service to utilize the service;

identify the description Me from the list of description, corresponding to a desired service, wherein a service provider providing the desired service published the description file for the desired service in the remote registry;

retrieve an identification of the description file, a location of the description file or the description file from the remote registry; and

using the desired service by directly exchanging messages with the service provider providing the desired service; wherein the messages exchanged include the pattern of message exchanges expected to be followed and documents types expected to be used as described in the description file for the desired service,

said conversation controller being operable to perform a sequence of interactions described in said description file,

said sequence of interactions includes at least one of receiving messages and transmitting messages; and

said description file including a document type for each interaction, the document

type specifying a document to be used in the interaction,

wherein said conversation controller is operable to determine whether a document is an instance of a document type for an interaction of said interactions and is operable to execute the interaction in response to the document being the instance of the document type for the interaction.

15. (Original) The computer of claim 14, wherein at least one interaction of said sequence of interactions is configured to select one message to be received or transmitted from a set of messages.

16. (Original) The computer of claim 14, wherein said messages are XML documents.

17. (Original) The computer of claim 14, further comprising at least one transition describing said sequence of interactions, said at least one transition including; a source interaction of said interactions and a destination interaction of said interactions, said source interaction being executed prior to said destination interaction.

18. (Original) The computer program of claim 17, wherein said at least one transition includes a triggering; message of said messages, said triggering; message invoking execution of said source interaction.

19. (Currently Amended) A computer comprising:

a web service,

wherein said computer is connected to a remote registry storing a plurality of description files, each description file being customized for a particular service provided by a computer and describes a pattern of message exchanges expected to be followed and documents types expected to be used for communicating with the computer providing the service to utilize the service,

 said computer comprising the web service configured to

 access the remote registry; and

 publish a description file in the remote registry, wherein the description file describes a pattern of message exchanges expected to be followed and documents types expected to be used for communicating with the computer to utilize the web service;

 said computer comprising the web service configured to communicate directly with another a second computer, wherein the second computer that

identified the description file for file web service from a list of the plurality of description files gored in the remote registry;

retrieved an identification or location of the description file far retrieving1he description file, or retrieved the description file from the remote registry and is using the retrieved description file to use the web service provided by said computer,

wherein to use the web service, said second computer directly exchanges messages with said computer providing the web service, wherein messages exchanged include the pattern of messages exchanges expected to be followed

and the document types expected to be used as described in the description file for the web service;

wherein to use the web service said second computer generates a conversation controller, said conversation controller being operable to perform a sequence of interactions described in said description file, said sequence of interactions includes at least one of receiving messages and transmitting message; and said description file including a document type for each interaction, the document type specifying a document to be used in the interaction, wherein said conversation controller is operable to determine whether a document is an instance of a document type for an interaction of said interactions and is operable to execute the interaction in response to the document being the instance of the type document type for the interaction;

said computer performing a plurality of interactions described in the description file, said plurality of interactions describing at least one of a message type to be received and a message type to be transmitted to said second another computer to facilitate said web service, wherein the message type to be received or the message type to be transmitted includes attributes describing data in a message that corresponds to the message type.

20. (Original) The computer of claim 19, wherein said description file includes at least one transition describing at least one sequence for executing one or more of said plurality of interactions.

21. (Canceled).

22. (Currently Amended) The computer of claim 20, wherein said another second computer communicating with the computer comprising the web service based on the plurality of interactions described in the description file retrieves said description file including said at least one transition and transmits and receives messages to said computer based on said description file including said at least one transition to utilize said web service provided by said computer.

23-24. (Canceled).

25. (Previously Presented) The computer of claim 19, wherein each of said plurality of description files are identified by a URN.

26. (Previously Presented) The computer of claim 19, wherein said message type to be received or transmitted comprises a description of an XML document.

27. (Canceled).

28. (Previously Presented) The computer of claim 14, wherein said conversation controller is operable to generate an error message in response to the document not being the instance of the document type.

29. (Previously Presented) The computer of claim 28, wherein an interaction error message in response to the document not being the instance of the document type is provided in the description file.

Allowable Subject Matter

3. Claims 1-4, 6, 8-20, 22, 25, 26, 28, and 29 are allowed. The following is an examiner's statement of reasons for allowance: In interpreting the claims, in light of the specification and the applicant's amendments filed on 26 September 2006, the Examiner finds claims 1-4, 6, 8-20, 22, 25, 26, 28, and 29 to be patentably distinct from the prior art of record.

4. With regard to independent claims 1, 14, and 19:

5. **Ankireddipally et al. (6,772,216)**, teach a general purpose application interaction protocol, referred to herein as the Commerce Exchange Interaction Protocol (CXIP), governs the exchange of data between applications resident in computers in a distributed network such as the Internet, providing for application interoperability. CXIP enables process communications among network-distributed software applications, particularly, but not exclusively, among software applications having dissimilar platforms, language dependencies or vendor dependencies. Data structures, object and method invocation requests are exchanged between applications by means of XML documents based on CXIP semantics. The application interaction protocol, which is not

specific to any particular functional domain and specifies interactions that are independent of transactional content, includes four component parts: message formats, message types, exchange semantics and transportation assumptions. CXIP-based interactions use TCP/IP as their underlying transport mechanism, although CXIP may be implemented using SMTP or FTP, or on top of any other standard application-layer protocol, including HTTP (**Ankireddipally, Abstract, Fig. 1 and corresponding text**).

6. **Meltzer et al. (2002/0165872)**, teach machine readable documents connect businesses with customers, suppliers and trading partners. The self defining electronic documents, such as XML based documents, can be easily understood amongst the partners. Definitions of these electronics business documents, called business interface definitions, are posted on the Internet, or otherwise communicated to members of the network. The business interface definitions tell potential trading partners the services the company offers and the documents to use when communicating with such services. Thus, a typical business interface definition allows a customer to place an order by submitting a purchase order or a supplier checks availability by downloading an inventory status report. Also, composition of the input and output documents, coupled with interpretation information in a common business library, programs the transaction in a way which closely parallels the way in which paper based businesses operate (**Meltzer, Abstract, Fig. 3 and corresponding text**).

7. **Devarakonda et al. (6,757,729)**, teach a system and method for a downloadable just-in-time middleware called VEM that provides access to network services, including system services such as printing and local storage, to applications

that run on Network Computers. The VEM configures the default client services and stores information about these services. When an application executing on the Network Computer wishes to use one of the services, it communicates with its local VEM. The VEM returns a handle to the appropriate service to complete the service request (**Devarakonda, Abstract, Fig. 1 and corresponding text**).

8. However, the prior art of record fails to teach or suggest individually or in combination that a computer comprising: a conversation controller generated from a description file, wherein the computer is operable to access a remote registry storing a list of description files, each description file being customized for a particular service provided by a computer and describes a pattern of message exchanges expected to be followed and documents types expected to be used for communicating with the computer providing the service to utilize the service; identify the description file from the list of description files corresponding to a desired service, wherein a service provider providing the desired service published the description file for the desired service in the remote registry; and retrieve an identification of the description file, a location of the description file or the description file from the remote registry; and using the desired service by directly exchanging messages with the service provider providing the desired service, wherein the messages exchanged include the pattern of message exchanges expected to be followed and documents types expected to be used as described in the description file for the desired service, said conversation controller being operable to perform a sequence of interactions described in said description file, said sequence of interactions includes at least one of receiving

messages and transmitting messages; and said description file including a document type for each interaction, the document type specifying a document to be used in the interaction, wherein said conversation controller is operable to determine whether a document is an instance of a document type for an interaction of said interactions and is operable to execute the interaction in response to the document being the instance of the document type for the interaction. These limitations, in conjunction with the other limitations in the independent claims, are not specifically disclosed or remotely suggested in the prior art of record. Therefore, claims 1-4, 6, 8-20, 22, 25, 26, 28, and 29 are allowed.

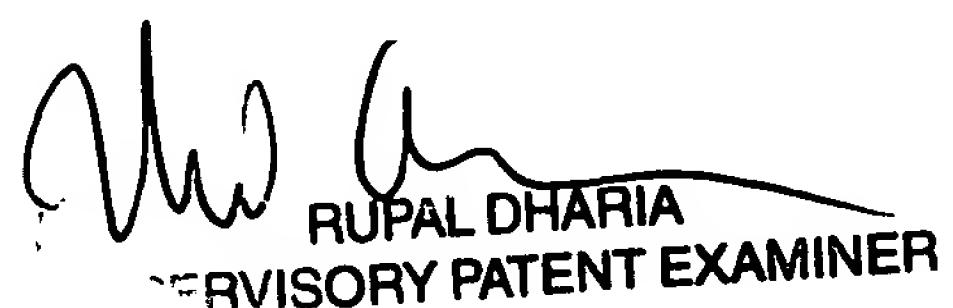
9. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ranodhi Serrao whose telephone number is (571)272-7967. The examiner can normally be reached on 8:00-4:30pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571)272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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